



UNITED STATES PATENT AND TRADEMARK OFFICE

ms

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/803,020

03/17/2004

Marion D. Kilgore

2003-IP-012786 U1 US

5129

20558

7590

10/13/2006

SMITH IP SERVICES, P.C.
660 NORTH CENTRAL EXPRESSWAY
SUITE 230
PLANO, TX 75074

EXAMINER

BOMAR, THOMAS S

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,020

Applicant(s)

KILGORE ET AL.

Examiner

Shane Bomar

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-13, 15-38, 40-60 and 62-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-13 and 15-37 is/are allowed.
- 6) ☒ Claim(s) 38, 40-47, 50-52, 54, 57, 62, 63, 65, 68 and 72 is/are rejected.
- 7) ☒ Claim(s) 48, 49, 53, 55, 56, 58-60, 64, 66, 67 and 69-71 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>20060926</u> . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Clarification

1. Claims 52 and 62 appear to claim the subcombination of a packer in the preambles, while the body of the claims brings in elements of a combination, such as the actuator and slip assembly, which are both separate components from the packer. If the Applicant is indeed intending to claim the combination of elements, then the beginning of the claims should be changed to --A packer assembly-- so that the bodies of the claims correspond with the preambles. If the Applicant is only claiming the subcombination of a packer, then the elements of the combination should be removed from the claims. The claims have been examined as though the combination was the Applicant's intention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 52, 54, 57, 62, 63, 65, 68, and 72 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent Re 36,525 to Pringle.

Regarding claims 52, 62, and 63, Pringle discloses a packer assembly comprising a packer with an outwardly extendable seal element 156, a slip assembly 158, and an actuator for setting the packer that comprises multiple pistons 162 and 164 circumferentially spaced apart from each other, wherein the actuator is positioned longitudinally between the seal element and

Art Unit: 3672

the slip assembly (see Figs. 1L-O and col. 8, lines 47-67). When comparing Figures 1M-O, it can be seen that piston 162 is part of element 150 that surrounds piston 164. Therefore, piston 164 is spaced inwardly from piston 162 and they have different circumferences.

Regarding claims 54, 57, 65, and 68, elements 166 and 168 are attached to pistons 162 and 164 and act as force transmission devices and extend across a structure having the pistons therein (see Figs. 1L-O).

Regarding claim 72, the actuator pushes piston 164 upwardly to set the packer, and the actuator pushes piston 162 downwardly to set the slips (see col. 8, lines 47-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 38, 40-44, 45-47, 50, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al in view of US 20030221837 to Giroux et al or US 7,090,027 to Williams.

Regarding claims 38, 40-43, and 51, Mills et al teach a method for setting a packer 20, the method comprising: increasing pressure on the packer by admitting pressure through a plug P that blocks a port in the tube 26B and is displaced by the increase in pressure (see Figs. 14-17); and displacing multiple pistons 27 circumferentially spaced apart, wherein multiple bores 25 receive each of the pistons (see Figs. 15 and 17). There is also a force transmission device 26B,

Art Unit: 3672

wherein each of the pistons is releasably coupled to the force transmission device so that displacement of each of the pistons in a longitudinal direction causes displacement of the force transmission device in the same direction, but the force transmission device is displaceable in the longitudinal direction relative to each of the pistons because the pistons only engage the device on one side of the shoulders (see Figs. 3B and 12B); and an actuator is positioned between the outer extents of the seal element 22 and the slip assembly 23U and 23L (see Figs. 2A-3B and 12A-13B). However, it is not specifically taught that the plug P is a rupture disc, as is currently claimed.

Both Giroux et al and Williams teach that blowout plugs, such as the plug of Mills et al, are notoriously known in the art to be interchangeable means for relieving pressure in the downhole environment (see paragraph 0016 and claim 5 of Giroux et al; and col. 1, lines 40-42 and col. 2, lines 35-37 of Williams). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art that the plug P of Mills et al could be replaced with a rupture disc, as taught by Giroux et al and Williams. One would have been motivated to make such a combination based in part on the conditions prevailing in the downhole environment because a rupture disc will provide certain advantages over plugs in some situations, whereas the plug may be more desirable in other situations.

Regarding claim 44, since this packer is set relatively high in the wellbore (see col. 7, lines 60-67 of Mills et al), it is notoriously known in the art that the weight of the string below the packer will be extremely high. Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art that the pistons would have to be able to exert

Art Unit: 3672

enough force to overcome the weight of the tubular string to be supported, wherein a force greater than 19,000 psi would be one that a person of ordinary skill could reasonably establish.

Regarding claims 45-47, a setting initiation device 51 applies a first biasing force to the force transmission device in response to pressure in the well when the tube 26B is exposed to pressure above the packer (see col. 11, lines 3-6 and 10-14 of Mills et al), the first biasing force being greater than, and oppositely directed relative to, a second biasing force applied to the force transmission device by the pistons in response to pressure in the well (see col. 11, line 53 through col. 12, line 9 of Mills et al).

Regarding claim 50, the bores are formed in an annular structure 21E that encircles an inner tubular mandrel MS or ML of the packer (see Figs. 2B, 3B, 10, and 12B of Mills et al), the structure is free of any direct attachment to the mandrel so that the structure is reciprocally displaceable on the mandrel (see col. 8, lines 5-11 of Mills et al), and the force transmission device includes multiple elongated members 26B which extend across and through multiple respective openings formed longitudinally through the structure 21E (see Figs. 14-17 of Mills et al).

Allowable Subject Matter

6. Claims 11-13 and 15-37 are allowed.
7. Claims 48, 49, 53, 55, 56, 58-60, 64, 66, 67, and 69-71 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments, see page 14, filed July 17, 2006, with respect to the rejection of claim 11 have been fully considered and are persuasive. The rejection of claim 11 and its dependents has been withdrawn.

9. Applicant's arguments filed July 17, 2006 with respect to the rejection of claim 38 have been fully considered but they are not persuasive. The Applicant argues that a plug such as P is not a rupture disc as understood in the art. However, I have found US 20030221837 to Giroux et al (see paragraph 0016 and claim 5) and US 7,090,027 to Williams (see col. 1, lines 40-42 and col. 2, lines 35-37) that show that rupture discs and blowout plugs are notoriously known to be interchangeable in the art.

10. Applicant's arguments with respect to claims 52 and 62 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 571-272-7026. The examiner can normally be reached on Monday - Thursday from 6:30am to 4:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

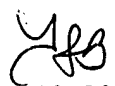
Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David J. Bagnell
Supervisory Patent Examiner
Art Unit 3672

tsb



October 10, 2006